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1886. A. I. ROOT'S CATALOGUE OF 1892.

# SEEDS FOR THE GREENHOUSE, GARDEN, AND FARM.

AND ESPECIALLY FOR BEE-KEEPERS.

HIRTEENTH EDITION.

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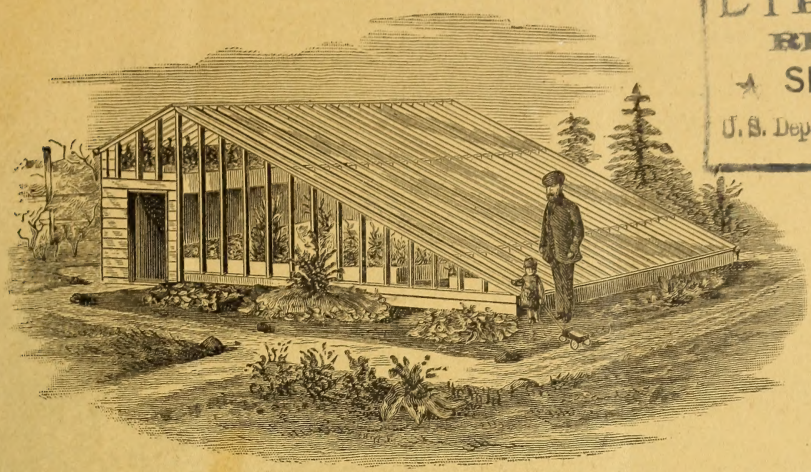


## PRICE 5 CTS. PER PAPER; 10 PAPERS, 40 CTS.; 100 PAPERS, $3.50.

Seeds of new or rare vegetables and novelties, we include at the uniform price of 5 cts. per package; but, of course, we are obliged to put a smaller number of seeds into such packages. This will be noticed with the Bush Lima Bean and Snowball Cauliflower, etc. Now, these 5-cent papers are all sent by mail postpaid; but when you order seeds BY THE OUNCE OR POUND, allow postage thus: 9 cts. per pound; 5 cts. per half-pound; 1 cent per ounce. Peas and beans by the pint and quart must also have 8c per pint, or 15c per quart, added for postage; on corn, add 12c per quart for postage. One-fourth ounce, pound, or peck will be sold at ounce, pound, or peck rates.

### OUR WARRANT ON ALL THE SEEDS WE SELL.

Now, friends, this is a somewhat difficult matter; but I feel free to say, at the outset, that we guarantee the contents of the packages to be what they are labeled, and seeds to be fresh, either our own raising, or purchased of some one having a good reputation, who makes seed-growing a specialty; that is, we warrant them to this extent: If the seeds do not seem to be as represented, we will replace them free of charge; but we can under no circumstances undertake to guarantee a crop, nor can we be responsible for the failure of said crop. The matter is so complex, and there are so many circumstances contributing to make success or failure, that I am obliged to put in this latter clause. If the seeds are not accepted with this understanding, we prefer they should be returned. We are practical market gardeners, and are sowing the seeds we sell, nearly every day in the year. If there is any fault with them, we are usually one of the first to find it out.

### ASPARAGUS.

**Asparagus, Palmetto.** Oz. 5c; lb. $.75.
We have given this new variety a trial beside the Colossal, and it is certainly a stronger and more robust plant.

**Asparagus Roots.** 2 years old. Palmetto, 10 for 10c; 75c per 100; $6.00 per 1000. By mail, add 5c for 10, or 25c per 100.

### BUSH BEANS.

**Henderson's New Bush Lima Bean.** ½ pt. 20c; qt., 50c; peck, $3.50.
In our catalogue for 1889 we pronounced this the most important novelty for 1889. It is a genuine bush lima bean, only that it is much smaller than the pole lima; and is certainly a valuable acquisition to many who can not well go to the time and expense of providing poles. It is exceedingly prolific, each stalk or stem bearing from 50 to 100 pods, under good cultivation. The extra trouble of picking and shelling, in order to get them ready for the table, is the only drawback. We sold them at 10 cts. per pint last summer, month after month.

**Kidney Wax.** Pt. 20; pk. $2.00.
This is an improvement on the ordinary Golden Wax Bean, in giving us larger pods, more perfectly free from rust. This bean is a decided acquisition.

**White Kidney, Large.** Pt. 10c; pk. $1.25. Bu., $4.50.
One of the best to use shelled, when green or ripe. We sell bushels of these at 10c a pint, shelled green. We market them in new pint strawberry-boxes.

**York State Marrow.** The best field bean. Pint, 10c; peck, $1.00; bush. $3.75.

### POLE BEANS.

**Extra-Early Lima Beans.** These are fully equal to the old lima beans, and are fully as productive, and from ten days to two weeks earlier. We consider it an acquisition. Price, ½ pt. 15c; qt 60c; peck $2.50.

**King of the Garden Lima.** ½ pt. 15c; qt. 60c; peck, $3.00.
These are fully as good as the common lima, and the pods are considerably larger, saving time in picking and shelling, as well as increasing the yield. We get 15 cents per pint for these, when green, shelled. See White Kidney bean above.

*All of our beans will be furnished in 5-cent packages; but where they are to go by mail, postpaid, of course the above packages will have to be quite small. If wanted by mail, add 8c per pt. or 15c per qt. for postage.*

### BEETS.

**Eclipse.** Oz. 5c; lb. 50c; 5 lbs. $2.00.
These have given us the best satisfaction of any thing we ever raised in the way of beets. They are a very quick grower, of excellent quality, and the appearance of the bright smooth scarlet bulbs is fully equal to any thing that has been pictured in the colored plates of our catalogues. In order to get a fancy price for them, start them in the greenhouse, and transplant when of the size of peas, or a little larger. They bear transplanting well, and are exceedingly hardy.

**Lane's Improved Sugar.** Oz. 5c; ¼ lb. 10c; lb. 40c; 5 lbs. $1.50.
The best variety for stock-feeding. It showed a larger per cent of sugar at the Experiment Station than any other analyzed. It is so sweet, that, when small, they are nice to eat raw, and make an excellent table beet. Has yielded as high as 20 tons to the acre.

**Long Red Mangel.** Oz. 5c; ¼ lb. 10c; lb. 30c; 10 lbs. $2.50.
Yields enormously, and is the most profitable for stock, but not so sweet as Lane's improved. Seed is of our own raising, from selected roots.

### CABBAGE.

**Select, Very Early Jersey Wakefield.** *Stock seed.* Oz. 20c; lb. $2.50.
Our cabbage seed this year is raised by H. A. March, Fidalgo Bay, near Puget Sound, Washington Territory. Thousands of sample packages were sent out by us in 1888, and friend March's seeds ought to be pretty well known. The Early Jersey Wakefield, of the best selected strain, is fully as early as any other cabbage known, and greatly superior in quality. We have sold single heads at retail at 30c each, raised from plants started in the greenhouse in February.

**Henderson's Early Summer.** Oz. 20c; lb. $2.50.
This comes next to the Jersey Wakefield; and although it is an early cabbage, under very favorable conditions it produces large heads of most excellent quality.

**Fottler's Brunswick.** Oz. 20c; lb. $2.50.
This is one of the old staple varieties, and is perhaps planted as extensively as any one variety, from medium to late cabbage. Standing a long time without bursting. Our seed was raised by H. A. March, the same as the Early Jersey Wakefield, and our entire stock is STOCK SEED; that is, it is from the very BEST HEADS that could be selected out of a field of SEVERAL ACRES.

**Excelsior Flat Dutch.** Oz. 15c; lb. $2.00.
Pronounced by Brill the BEST LATE CABBAGE. During the past season this has given us the finest heads of LARGE CABBAGE we have ever grown.

**Perfection Drumhead Savoy.** Oz. 15c; lb. $2.00.
The Savoy cabbage is handsome in appearance, and richer and finer in quality, and STANDS FROST better, than any of the other varieties. In taste it nearly approaches the cauliflower.

**Large Red Drumhead.** Oz. 25c; lb. $3.50.
This is a red cabbage for pickling. The bright red, by way of contrast, will make a load or lot of cabbages attract attention, and there is always more or less demand for red cabbage for pickles. Heads are very solid, and SPLENDID KEEPERS.

## CARROTS.

**Early French Forcing.** Oz. 10c; lb. $1.00.
These are small, but very early, and often bring a good price, because they are the first that make their appearance in the market. Bunched up like radishes, they are very taking in appearance.

**Orange Danvers, Half-Long.** Oz. 5c; lb. 60c.
Yields well, and is easy to dig. The best sort known.

## CAULIFLOWER.

**Henderson's Early Snowball.** Raised by H. A. March. ⅛ oz. 25c; ¼ oz. 40c; oz. $1.50.

Nice specimens of early cauliflower often bring extravagant prices, and it pays well to start them in the greenhouse, and use hand-glasses to forward them before the hot weather comes on.

## CELERY.

**Henderson's White Plume.** Oz., 20.; lb., $2.50.
We place this at the head of the list, and especially for early celery. During the past season we had fine stalks on the market in July, and it sold readily at 10c each. The seed was started in the greenhouse about the middle of January. On account of its self-bleaching qualities it is better fitted for early celery than any other.

**Golden Self-Blanching Celery.** ¼ oz., 10 cts.; oz., 35c; lb., $3.50.
It is different from all others we have seen, in being not only more dwarf—i. e., shorter, but it is also thicker; in fact, the plant, when fully matured, is so thick and stumpy as to create surprise. The variety is also excellent, and the labor of banking up is not more than that of the White Plume. It is rather an early celery, and should be used soon after approaching maturity.

**New Rose.** Oz. 20c; lb. $2.50.
Our verdict is, that it is not only the hardiest and best grower among the whole celery family, but, when properly bleached by being put away for winter, it has given us the finest and most delicious and crisp celery we ever tasted. Although it is a red celery when growing, when fully bleached there is hardly a trace of the pink color, but it is a beautiful creamy white. We place it at the head of every thing else for a LATE WINTER celery.

**Dwarf Golden Heart.** Oz. 15c; lb. $2.00.
One of the standard sorts for a later crop. The golden tint of the head stalks makes it a very handsome vegetable.

## CORN (FOR TABLE USE).

**Cory's Extra Early.** (Amber corn). ½ pt. 8c; qt. 20c; pk. $1.00; bushel, $3.75.
Cory's corn has not only proved to be the earliest by ten days or two weeks, but the ears are surprisingly large and fine; and the quality, if cooked at once, as soon as picked, is almost equal to any sweet corn we have. It is quite an acquisition.

**Ford's Early Sweet.** ½ pt. 8c; qt. 20c; pk. $1.25; bushel, $4.50.
Excellent in quality, and exceedingly early.

**Late Mammoth Sugar.** Price same as Shoepeg.
This is excellent in quality, and gives ears of mammoth size, and is a wonderful yielder. Besides this, our strain is the SWEETEST sweet corn we have ever grown, and we have tested all the novelties that have been recommended. Our trade has been very large in this kind of corn for eight or ten years past.

**Shoepeg.** Half-pint, 5c; qt. 20; pk. $1.00; bu. $3.50.
Here is what the Ohio Experiment Station says in regard to it:
This is the same thing as the Ne Plus Ultra, or Banana. It is the most meaty and delicious corn that I ever tasted. The ears are not large, hence it might not be suitable for market; but it is unsurpassed for home use. I give the different names by which it is known, so that it may be recognized in the different catalogues. W. J. GREEN.
Columbus, O., Nov. 18, 1890.
Burpee also says that Quaker Sweet is the same thing as Shoepeg. We grew it last season, and heartily indorse all that friend Green says.

**Gold Coin.** ½ pt. 10c; qt. 30c.
This is a real yellow sweet corn. Very productive. Exceedingly valuable for a fodder corn or ensilage, as it grows tall and very bushy. In season with Mammoth. We have a limited stock from select ears that we offer, while it lasts, at the above prices.

*Customers must pay 3c postage on ½-pt. pkgs. of corn.*

## CORN SALAD.

Oz. 5c; lb. 75c.
Sometimes called Lamb's Lettuce. It is to me a most delicious salad, something like lettuce, but having a peculiar rich flavor suggestive of cowslips and spring. It is very hardy, and will often stand out all winter. It does splendidly in greenhouses and cold-frames.

## CRESS, OR PEPPER GRASS.

**Extra Curled.** Oz 10c; lb. 75c.

## CUCUMBER.

**Early Frame.** Oz. 5c; lb. 50c.
The earliest cucumber.

**Rawson's Improved Early White Spine.** Oz. 25c; lb. $3.50.
This is the kind he uses for raising in his greenhouse, and the cucumbers bring 50 to 75 cents each, even where he raises them by the thousands. Fine specimens are wonderfully handsome and taking, and they sometimes grow to a great size without getting yellow.

**Green Prolific, or Boston Pickle.** Oz. 5c; lb. 60.
Wonderfully productive; medium size; dark green; tender. It yields fully twice as many pickles as any variety we ever tried.

## KOHLRABI.

**White Vienna.** Oz. 10c; lb. $1.25.
This is a quick-growing vegetable, half way between turnip and cabbage. If the plants are started in the greenhouse, the vegetable may be put on the market at the same time with the very earliest cabbages; and where people once get a taste of it, it is pretty sure to meet with a rapid sale at good prices.

## LETTUCE.

**Grand Rapids Lettuce.** ¼ oz., 10c; ounce, 25c; pound, $2.50; 5 lbs. $10.00. *This seed is of our own raising.*
This is the best all-purpose lettuce in cultivation It has been developed from the Black-seeded Simpson, by something like fifteen years of careful selection. It is superior and beautiful in appearance, a strong grower, very tender and crisp. At least fifty large greenhouses are now engaged in raising this kind of lettuce for market, in the neighborhood of Grand Rapids, Mich. For further particulars, see our book, "What to Do." etc.

**Boston Market** (or White-seeded Tennis-ball). Oz., 10c; lb., $1.25.
The best variety of HEAD lettuce for greenhouse culture, as the heads are small, but compact and handsome.

**Henderson's New York.** Oz. 10c; lb. $1.00.
We consider this the best lettuce for outdoor culture known.

## MELONS, MUSK.

**Casaba, or Persian Muskmelon.** Oz. 5 cts.; lb. 60c.
A standard variety, of fair size. Last season we had specimens that I called the best melon I ever tasted.

**Extra Early Citron.** Oz. 5c; lb. 60 c.
Always profitable because of its extreme earliness.

**Banana.** Oz. 5c; lb. 60c.
I consider this one of the best muskmelons it has been my fortune to taste. They grow from 18 inches to 2 feet long; smooth skin; color, bright yellow. Always sell well on account of their unique appearance.

**Emerald Gem.** Oz. 10c; lb. $1.00.
This is a small one, say from 1¼ to 2 lbs. The skin is of a deep emerald green, and the flesh is of a salmon color—very delicious. My way is to eat it with a spoon, scraping the melon clear down to the rind. Of course, they want to be well ripened. I believe I shold call it one of the most delicious of all muskmelons.

**Miller's Cream, or Osage.** Oz. 10c; lb. $1.00.
We have been testing this for three years past. While the quality, perhaps, is not greatly better than some others, it certainly excels in yield. The meat is very thick, with a beautiful salmon color. The melons are dark green, and never turn yellow. When they are ripe, the stem will pull off of itself. We gather them for market, however, when they separate easily from the vine. It is certainly an acquisition.

## MELONS, WATER.

**Phinney's Early.** Oz. 10c; lb. $1.00.
The quality is very good, but the size is not very large.

**Landreth's Boss.** Oz. 5c; lb. 75.
A melon that seems to combine more of the good qualities for a large late watermelon than any other.

## ONION.

**Silverskin, or White Portugal.** Oz. 25c; lb. $3.50.
A standard variety for pickles, or for handsome bunch onions. Better flavored than the dark-skinned.

**Yellow Globe Danvers.** Oz. 20c; lb. $2.50; 5 lbs., $2.00 per lb.
A standard yellow variety. The best of all to grow from seed. It makes a wonderful difference, however, how the seed is grown. Some strains will give nearly double the crop that others will.

**Spanish King, or Prize Taker.** ¼ oz. 15c; oz. 50c; lb. $6.00.
This is the celebrated onion we see in the stores, called Spanish onion. Its color is nearly white. It is one of the finest-flavored onions grown, but is not a very good keeper. In this region it is necessary to start the seed under glass in January or February, then plant the small onions out in the field as soon as the ground can be worked.

**White Victoria.** ¼-oz. 20c; oz 65c; lb. $7.
We regard it as an acquisition for bunch onions, from the fact that the bulbs, when grown in muck, are of a pearly



Our seed is the best we can get, and we can not undertake to compete with cheap foreign-grown seeds.

whiteness, and need no peeling at all. If sown tolerably thick, you can pull them by the handfuls. Tie a string around them, swish them in a bucket of water, and they are ready for market. If sown early, we get 5 cts. for a ½-lb. bunch. These, besides being valuable for bunch onions, when given room and proper culture (see Spanish King and Silver King) grow to an immense size. I regard them as the handsomest early onion I have ever seen.

**American Pearl.** ¼-oz. 10c; oz. 25c; ½-lb. $1.85; lb. $3.50. Sets, per qt., 35c; peck, $2.25. By mail, 10c per quart extra.

In September, 1890, Johnson & Stokes were so very positive that sets of the above onion could be planted in the open field in September that I sent for half a peck of sets for trial. They came right up, and grew nicely, and, to my great surprise, wintered without any injury I could discover. In the spring they started to grow at once, and made immense great white onions long before our onions started in the greenhouse had any chance to make an onion of marketable size. We commenced selling them when they were a little smaller than hen's eggs, and kept on selling until they were three or four inches across. Of course, we got large prices for them at such an unusual time of year. We have both seed and sets of this variety. The sets may be put out at any time in September, and we think at any time in October, providing frosts hold off. This new way of getting extra early onions promises to open a new era in the business of spring onions for market.

## ONION SETS.

We have those of Yellow Danvers and Silverskin.

*Prices of yellow, 20c per quart; $1.50 per peck, or $5 per bushel. Silverskin, one-half more than above prices. If wanted by mail, send 10c per quart extra.*

Large size (often used for pickles) one-half above prices.

**Winter, or Egyptian Onion Sets.** Prices, 15c per qt., or $1 per peck. By mail 10c per qt. extra.

This onion does not produce a bulb at all, or at least only a very inferior one. All it is raised for is its long succulent stalks, with a sort of root, or small bulb, on the lower end. It has such an inveterate habit of growing that it grows any time when in the ground or out of it; and, in fact, almost the only place to keep it is IN the ground. During August and September the sets may be gathered and sown. You can, with care, keep them over winter. The sets grow in the form of little onions, on the top of the stalk, like the old-fashioned onion-sets we used to see when we were children. We gather these sets as soon as they are ripe, say about the middle of August; then we sprinkle them in a drill, about as we would peas, say from three to five inches apart.

## PARSNIP.

**Improved Guernsey.** Oz. 5c; lb. 50c; 10 lbs., $4.50.

Fine grained, fine flavored, smooth. The best parsnip we have found yet.

## PARSLEY.

**Fine Curled or Double.** Oz. 5c; lb. 50c.

## PEAS.

**Alaska.** ½ pt., 5c; peck, $1.75; bush., $6.00.

This pea is not only the earliest of any thing we have ever tried, but, strange to tell, it is also of a delicious quality, very productive, and an excellent pea in every respect, except that the pods look ready to pick before the peas inside are large enough to amount to any thing. If you pick them when they LOOK plump and full you will disappoint your customers, and have trouble. Get careful pickers; tell them not to pick a pod until they know by squeezing it that there are good-sized peas inside, and you will then call it, as we do, ahead in QUALITY of any other EARLY pea in the world.

**American Wonder.** ½ pt. 10c; pk. $1.75; bu. $6.

This is a cross between the Champion and the Little Gem. The vine grows from 6 to 8 inches high. It is the first to ripen among the green wrinkled sorts. On account of its dwarf habits it can be grown very easily under glass.

**Stratagem.** ½ pt. 10c; qt. 35c; pk. $2.00.

This has made its way rapidly in public favor. It is not only of rare excellence in quality, but the pods and peas are so large and fine looking they call attention at once from any thing else in the market. It has given us excellent satisfaction.

**Champion of England.** Pint, 15c; pk. $1.00: bushel, $3.50.

So well known as to need no recommend here.

*Peas by mail will be at same rate as beans for postage.*

## PEPPERS.

**Sweet Spanish.** ¼ oz. 15c.; oz. 50c.

This is not hot at all. Is used largely for pickles, to stuff with cabbage, mustard seed, etc.

**Bullnose.** ½ oz. 25c; oz. 40c.

Very large, mild, but considerably hotter than the Spanish.

**Cayenne.** ¼ oz. 15c; oz. 50c.

Very hot. Fruit about 2 inches long.

## POTATOES.

**Early Ohio.**

The Experiment Station, Columbus, O., says there is nothing earlier.

**Early Puritan.**

Nearly as early as Early Ohio, and much more productive. Highly recommended by our Ohio Experiment Station.

**Lee's Favorite.**

This is a few days later than the foregoing, but yields better still. In our locality during 1889 it gave us over 100 bushels, from one-fourth of an acre.

**Beauty of Hebron.**

This is preferred by Terry because it gives as good, or better yield than any other, and comes off early enough to admit of getting in wheat in good time. It is a standard medium sort.

**Monroe Seedling.**

Here is what T. B. Terry says in regard to them:

Last season we had more perfect tubers in a bushel than I think I ever saw in any other variety of potatoes. They are strong growers, and do not sprout early; better quality than most late potatoes. I have returned 42 orders in one day since they were all sold. T. B. TERRY.

Hudson, O., Oct. 22, 1890.

Prices of any of the above: 1 lb., by mail, 18 cts.; 3 lbs., 40 cts.; 1 lb., by express or freight, 5c; 1 peck by express or freight, 50 cts.; 1 bushel, $1.15. Barrel, containing 11 pks, $2 75. If potatoes are ordered in the winter, we will do our best to protect them from frost, but purchaser must take all risk. At these prices we make no charge for barrels or packages, but deliver F. O. B. cars here in Medina.

**Potato-eyes.** Any of the above varieties by mail postpaid, 15c for 10; or 80c per 100.

## PUMPKIN.

**Early Sugar.** Oz. 5c; lb. 50c.

This was selected from 13 different kinds of pumpkins. They are specially designed for the first pumpkin pies of the season. Our strain of seed has been heretofore a good deal mixed. Last fall we had, however, a patch of many hundred, without a single large pumpkin in the lot. They are much earlier than the ordinary pumpkin, sweeter for pies, and so small in size that we sold them all along in the fall at the rate of two for a nickel. In many places people will pay more for early pumpkins for pies than they will for any kind of squashes.

**Connecticut Field.** ½ pint, 5c; quart, 15c; peck, 75c; bushel, $2.00. If wanted by mail, add at the rate of 16c per quart for postage.

## RHUBARB.

**Myatt's Victoria.** Oz., 10c; lb., $1.50.

## RADISHES.

**Early Scarlet Globe.** Pkt. 5c; oz. 10c; lb. 75c

This is the radish that Vick gives such a beautiful chromo of in his catalogue for 1888; and for forcing in the greenhouse, it is ahead of any other in the way of forcing radishes. They begin to form a bulb almost as soon as the second leaves come out. They are very hardy, and of exceedingly rapid growth.

**Wood's Early Frame.** Oz. 10c; lb. 75c.

The very best long radish for raising under glass, or for extra early.

**Beckert's Chartier.** Oz. 5c.; lb. 40c.

A novelty, and one that has given us the greatest satisfaction; of rapid growth and good size, both at the bottom and top. In favorable soil it will grow to a large size, and still be excellent in quality. They are remarkably certain to make a good bulb, and stand a long while without getting corky.

**Chinese Rose Winter.** Oz. 10c; lb. 75c.

These not only stand cold weather until toward Christmas, but we consider them really a most delicious radish, and the most free from being corky, of any radish known. They are not as strong as radishes ordinarily are, but are of a sweet turnip flavor. Usually sown at the time we sow turnips.

## SALSIFY, OR OYSTER PLANT.

**New Mammoth.** From Sandwich Islands. Oz. 10c; lb., $1.50.

We have grown this side by side with the common salsify, and we find the roots larger, better shaped, and equally good in other respects; they are, therefore, without question an improvement. Finely grown specimens are almost as large and smooth as parsnips.

## SPINACH.

**Bloomsdale Extra Curled.** Oz 5c; lb. 25c. 5 lbs. $1.00.

It combines as many of the good qualities as any other.

## SQUASH.

SUMMER.

**Giant Summer Crookneck.** Oz. 10c; lb. $1.00.

This squash is as early as the ordinary crooknecks, and in every way equal; but are of such size that one squash will make a dinner, even when soft and tender; and one good thrifty plant will almost supply a family. Our seeds are our own raising, and are saved only from carefully selected specimens.

WINTER.

**Hubbard.** Oz. 10c; lb. $1.00.

We would call special attention to our Hubbard squash. We offer stock seed—that is, seed saved only from the choicest specimens, such as we would raise seed from another year. There is no better winter squash than the Hubbard.

## TOMATO.

**Golden Queen.** Pkt., 5c; oz., 25c; lb., $3.00.

This is no special novelty, that I know of, over other tomatoes, except its beautiful golden yellow color; but at the same time the tomato is good-sized, and remarkably smooth and regular. Not so tart as the red varieties. Stock seed, our own raising.

A large part of our seed is our own raising, from carefully selected stock.

**Ignotum Tomato.** ¼ oz. 10c; oz. 30c; lb. $3.50.
During the year 1889 we sent out about 3000 sample packages of the Ignotum tomato; and the general testimony of those who have grown it corroborates the decision of the Michigan Agricultural College, that it is, all things considered, the best, and they gave it a test side by side with over 100 different varieties. There are, however, several kinds (among them Livingston's Beauty) that are rather handsomer in shape, but they are behind in size and earliness. In solidity the Ignotum is behind none; and for slicing up for the table we have never found any thing better.

**Livingston's Beauty.** Oz. 20c; lb. $2.50.
This is a production of the same Livingston who brought out the Acme, Trophy, Favorite, and Perfection; but he pronounces this superior to them all. They are better shaped and smoother than the Mikado, but not so large.

**Dwarf Champion.** ¼ oz. 10c; oz. 25c; lb. $3.00.
We have tried to get along without this tomato; but its earliness, uniform size, solid, thick meat, round, smooth shape, and, more than all, dwarf, compact habit of growth, permitting it to be planted as close as 2 by 3 feet apart, commends it so highly that we have concluded to offer it again, though it makes our list larger than we like.

**Pear-Shaped Tomatoes.** Oz. 20c; lb. $2.50.
These are handsome for pickles and preserves. They are immense bearers, and of good quality. About the size of hickorynuts.

## TURNIP.

### Extra-Early Turnips.

We have tested some of these which are advertised in the different seed catalogues; and while we find them some earlier than the staple turnips, they are, so far as we have tested them, inferior in quality, very strong in taste, and sometimes bitter.

**Purple-top White-globe.** Oz. 5c; lb. 40c.
This turnip has given us the best results of any thing we tried; the quality seems to be unusually fine for table use, especially when they are about as large as fair-sized apples. They grow nearly as quick as any other turnip known, and are very handsome. When washed they are almost as white as an egg, with a beautiful purple around the top. They are smooth and round.

**Yellow Aberdeen.** Oz. 5c; lb. 40c.
We consider this one the best table turnip grown. When cooked it is so yellow that it will sometimes be mistaken for squash.

**Breadstone.** Oz. 10c; lb. $1.40.
During the past season this turnip was so much superior to any of the Swede turnips for table use, that those who ate them at our lunch-room came to me not only for turnips, but for seed to sow next year. The flesh is yellow, and the quality exceedingly rich and delicious.

**White Egg.** Oz. 5c; lb. 50c.
Very showy and handsome, as well as quite early, and fine quality. In 1890 they sold for 10c more a peck than the Purple-top Globe.

**Southern Prize.** Oz. 5c; lb. 50c.
For many years I have wondered if it were not possible to get a real turnip as strong growing and as hardy as the Seven-top. This we have finally secured, in the "Southern Prize." It stands all winter, even in Ohio, without protection: and, in fact, it seems to GROW all winter; and, best of all, it has a good-sized bulb (of fair quality) that winters over as completely as a parsnip.

# VEGETABLE PLANTS.

These are one of our great specialties, and we are prepared to furnish cabbage and lettuce plants from the first of March till the first of August; celery-plants from the first of March till the first of September; tomato-plants from the first of April till the first of August.

## PRICES AND VARIETIES.

### ASPARAGUS ROOTS.

HENDERSON'S PALMETTO roots, 2 yrs. old, 10c for 10; 75c per 100, or $6.00 per 1000.

### HORSERADISH ROOTS.

Price 20c for 10; $1.00 per 100; $5.00 per 1000.
Horseradish is best propagated from pieces of root 2 to 4 inches long; these should be put in the ground at an angle of about 45 degrees, and deep enough so the tip of the cutting will be about two inches below the surface of the ground. They should have about 1 foot of space each way, and it is a good plan to put them in some corner where they will not have to be disturbed, as, when once started, they will take care of themselves, and occupy all the territory you will allow them. Can be planted any time, and do not object to a very wet place.

### CABBAGE-PLANTS.

We keep in stock during the months of March, April, May, June, and July, varieties as below:
SELECT VERY EARLY JERSEY WAKEFIELD, HENDERSON'S EARLY SUMMER, 5c per 10; 100, 40c; 1000, $3.00; 10,000, $25.00. During May, June, and July, EXCELSIOR FLAT DUTCH, FOTLER'S BRUNSWICK, prices same as above. PERFECTION DRUMHEAD SAVOY CABBAGE, and LARGE RED DRUMHEAD, 8c per 10; 60c per 100, or $5.00 per 1000.
Extra-strong plants, double above prices. If these are to be shipped by express, the expressage will be extra, on account of the great weight of the plants.

### COLD-FRAME CABBAGE-PLANTS.

When we have these they will be double the price of the plants raised in the greenhouse. During the present season we have only one kind of cold-frame cabbage-plants; viz., extra selected JERSEY WAKEFIELD.

### CAULIFLOWER.

We have confined our attention to the one kind—HENDERSON'S EARLY SNOWBALL. Price of plants, 10c for 10; 75c per 100, $6.00 per 1000. These will be ready in March, April, May, and June.

### LETTUCE-PLANTS.

We can furnish BOSTON MARKET, GRAND RAPIDS, and HENDERSON'S NEW YORK. Prices, 5 cts. per 10; 40 cts. per 100; $2.50 per 1000.

### TOMATO-PLANTS.

These will be ready from April first till August first. We have the following varieties:
LIVINGSTON'S BEAUTY, IGNOTUM and GOLDEN QUEEN. The above will be 10c for 10; 75c per 100; $6.00 per 1000; or $50.00 per 10,000.
PEAR-SHAPED TOMATOES, for pickles and preserves, 8c for 10, or 75c per 100.

### CELERY-PLANTS.

We keep in stock HENDERSON'S WHITE PLUME, GOLDEN DWARF, GOLDEN SELF-BLANCHING, and NEW ROSE. Prices, 5c per 10; 40c per 100; $3.00 per 1000; or $25.00 per 10,000.
Extra-strong plants, double above prices. If these are to be shipped by express, the expressage will be extra on account of the great weight of the large plants.

### PEPPER-PLANTS.

We expect to keep in stock BULLNOSE, CAYENNE, and SPANISH PEPPER. The price will be 15c for 10; $1.25 per 100, or $12.00 per 1000.

### SWEET-POTATO-PLANTS.

Same price as celery-plants; ready May 1st.
We can send plants by mail if enough is added to cover postage and packing, which will be 5c for 10, or 25c per 100.

Our cabbage, cauliflower, tomato, and celery plants are transplanted once, then we wait for them to make good, strong roots before sending them out. We know this insures your getting much better plants than is possible to produce in a seed-bed without transplanting. Lettuce, pepper, and sweet-potato plants are better not transplanted when small or very young.

# STRAWBERRIES.

With the multitude of new and exceedingly good berries before us at the present date, it is a very hard matter to make a selection of only a few kinds; but, as with garden seeds, I can not consent to cumber myself nor my patrons with a long list of varieties. I am testing most of the new kinds, and I may, perhaps change my list somewhat from time to time, but for the present I have decided to offer for spring planting only JESSIE, GANDY, STERLING, BUBACH, and HAVERLAND. The two latter are pistillate, therefore you need at least a fourth of the number of Jessies to put among them—or, say, every third row Jessie. We prefer the Jessie for a fertilizer, because it has such a long season and such an abundance of blossoms. The Bubuch furnishes large berries in great abundance; but during a wet season they are liable to rot, as they are pretty soft. The Gandy is a large, handsome, very late berry. The Haverland is the most wonderfully productive of any berry I have ever seen at the present writing. The Sterling is T. B. Terry's favorite berry. They're fine dark color, good shape, rather tart, but stand frost remarkably well. Our prices are, 10 cts. for 10 plants; 75 cts. per 100, or $6.00 per 1000. If wanted by mail, add 5 cts. for 10, or 25 cts. per 100, for postage. We can furnish strawberries from March till November, inclusive.

# SEEDS OF HONEY-PLANTS.

I have for years had dreams of a honey farm, with acres of flowers of different colors, blooming at different seasons, and keeping the bees away from the stores and groceries when we have a dry spell in the fall. The dream has been partially realized with the Simpson honey-plant, Mollie O. Large's spider plant, and the seven-top turnip, but I am pretty well satisfied it will *not* pay to cultivate these for honey alone. Mignonnette, catnip, motherwort, borage, melilot, and some others, I have tested, but I am quite sure that none of them have ever paid, just for the honey.

We first give a list of the plants that not only yield honey, but are profitable crops for their other products. If the bee-keeper can not raise these himself, he can often induce farmers round about him to do the same by furnishing the seed free, or (where it is expensive) part of the price of the seed. As an illustration: We have for years been in the habit of furnishing buckwheat seed free of charge to any one who will sow it within a mile and a half of our apiary. Alsike, white Dutch clover, and Mammoth (or Peavine) we furnish at *half* the usual price. Now, then, friends, which is the most important honey-bearing plant, generally speaking in the world? I am inclined to think that basswood (or linden) bears the *largest quantity* of honey, although it is not generally considered quite equal to clover in flavor; for in the honey-markets it usually sells for one cent per pound less than clover. We, however, put basswood first and clover second.

| | Per 10 | Per 100 |
|---|---|---|
| **Basswood-trees.** | | |
| One foot and under, each, - | .05 | .30 | $ 2 00 |
| The above by mail, " - - | .08 | .35 | 2 25 |
| One to five feet, " - | .10 | .75 | 5 00 |
| We also have some fine tulip or whitewood trees of the following sizes and prices. | | |
| Five to ten feet, " - - | .15 | 1.25 | 10 00 |
| Ten to fifteen feet, " - - | 25 | 2 00 | 15 00 |

These will be taken directly from our nursery, and if planted any time after the leaves have fallen, until the ground freezes, not one in one hundred should fail to grow. They can also be sent during the months of March, April, and May; and spring planting is preferable. For a description of the basswood, with engraving, see A B C. Basswoods may be planted along the roadsides so as to answer for shade-trees, and at the same time furnish honey. The bee-keeper can also usually arrange so as to get them planted for shade along the streets of towns and cities. We can furnish the basswood-seeds if desired; but as they require special treatment I think our friends will be much better satisfied to buy little trees.

**Alsike Clover.** One ounce, by mail, 5 cts.; 1 lb., by mail, postpaid, 30 cts.; by express or freight, 1 lb., 20 cts.; one peck, $2.40; ½ bushel, $4.60; bushel, $9.00.

This furnishes not only the best honey of any plant in the world, letting the majority judge, but the quality of the plant for feed for cattle, whether hay or pasture, is probably better for milk-producing than any other forage-plant. It can be sown almost any time, but perhaps gives best results for seed, when sown in April or May. About 4 lbs. are required per acre, and it does not blossom much until the second year. Its treatment and cultivation are much the same as for common red clover, but the seed is saved from the first crop. We know our seed to be fresh, and free from dangerous seeds.

**White Dutch Clover.** Bushel, $8.00; ½ bu., $4.10; pk., $2.20; 1 lb., 18c; lb. by mail, 28c.

This differs but little from the ordinary white clover. It has an advantage over alsike, inasmuch as it will scatter itself without any cultivation, and it grows along the roadsides, pastures, and all waste places.

**Peavine, or Mammoth Red Clover.** Bush., $5; ½ bu., $2.60; pk., $1.40; per lb., 12 c; by mail, 9c per lb. extra.

This yields honey late in the season after all other clovers, and, in fact, after basswood; and in some localities it rarely fails to give more or less of a crop, especially where Italian bees are kept. In other localities there have been complaints made that the bees would not work on it.

**Buckwheat, Japanese.** Trial packet, 4 ounces; by mail, postpaid, 5 c.; 1 lb. by mail, postpaid, 15 c.; peck, 35 c.; ½ bush., 60 c.; bush., $1.00. These prices include bag to ship it in. Ten or more bushels, purchaser paying for bags, 75 c.

We should place buckwheat at the head of the list were it not for the fact that it often fails, almost, if not quite, to yield honey; and the quality of the honey is always second class and the color is dark. At the present time the Japanese has so far outstripped all other varieties that we have dropped them entirely from our list. It makes a much stronger growth than the old kinds, gives a much larger yield of grain, and also matures its seed a little earlier. During the past season the yield has been so great as to put buckwheat flour as well as grain at a lower price than it has been known before for years. We have an 8-page pamphlet, being a collection of articles from different localities, telling just how to raise buckwheat. Mailed for 5 c., or given free to all purchasers of our seed. Please notice that buckwheat can not very well be sent ALONE BY ITSELF, either by mail, freight, or express, without the expense of shipment being more than the value. If you want a peck, or half a bushel, it should be ordered by freight with other goods, unless you are willing to pay more than the seed is worth, in the way of charges.

**Alfalfa, or Lucerne.** Per bush., $7.00; ½ bush., $3.60; peck, $1.90; pound, 15 cts. By mail, 9 cts. per lb. added.

This is the great honey-plant of Arizona, Idaho California, and other Western States and Territories. Where it is raised by irrigation in fields of a thousand acres or more, there is an almost continuous honey-flow, from spring until winter. In fact, quite recently we have had reports of beautiful honey, not only by the ton, but by the carload. Little patches have, at least partially, succeeded in the Eastern States. During the coming season there will probably be many experiments made to test it. During dry seasons it will succeed, without a doubt; but much rain is detrimental. On our grounds it stands winter without injury, and we have found the roots at a depth of several feet. We furnish purchasers a little circular in regard to its cultivation.

**Rape.** Oz. 5 cts.; lb. 10 cts; 10 lbs. or over, 7½ cts. per lb.; 100 lbs., $6.00. By mail, 9 cts. per lb. extra.

Where rape is used for making oil, it often yields a considerable quantity of honey. In most localities, however, it is liable to be destroyed by the black flea, if sown earlier than July. It is sown like turnips, and about 3 lbs. of seed is enough per acre. It may blossom in four weeks after being sown, and stay in blossom four weeks longer.

**Raspberry.** Price of plants: 10, 40 cts.; 100, $2.50; If wanted by mail, add 5c for 10, or 25 cts. per 100

Red raspberries are, without doubt, one of our best honey-plants, and the Turner and the Cuthbert are probably as good as any varieties, the former being early and the latter late.

The above are the only plants I know of that can be *profitably* grown by the bee-keeper; that is, the honey they yield would probably *pay, in connection* with the profit on the plant for other purposes.

The following plants yield honey, and many of them in considerable quantities; but they are so little used for other purposes that there is little inducement to raise them by the acre; and let us bear in mind that it must take *acres* of any plant to yield honey enough to amount to any thing.

**Bee Balm, or Melissa.** Oz. 15c; lb. $2.00.

For further description, see GLEANINGS for November, 1887.

**Borage.** Oz. 10c; lb. 75c; if wanted by mail, add 10c per lb. extra.

A strong, hardy, rapidly growing plant, bearing a profusion of blue flowers. It may be sown any time, but will, perhaps, succeed best, at about corn-planting time. As it grows tall, and branches out considerably, it should have plenty of room. I know that bees are very busy on it, all the day long, from July until Nov., but I do not know how much honey an acre of it would furnish. It is easily tried, because it grows so readily, and if sown on the ground after early potatoes are dug, you will get a nice crop of fall bloom. Sow broadcast, or in hills like corn. Borage is also used as a salad, or cooked as spinach.

**Catnip.** Oz. 10c; lb. $1. If wanted by mail, add 10c per lb. extra.

This has been very much talked about, and we have record of some experiments with an acre or more; but, if I am correct, no one has ever yet seen a barrel of catnip honey. If you wish to try, we can furnish you good seed, that we have tested ourselves. Sow in the fall.

**Dandelions.** Package 5c; oz. 50c.

I presume everybody can get dandelion seeds and roots without buying them, but for all that, I have much faith in an acre of cultivated dandelions. French thick-leaved is superior for "greens," and by the way our bees take to our "patch" of it, I think it must be superior for honey.

**Figwort, or Simpson Honey-plant.** Oz. 20c; lb. $2. By mail, 10c per lb. extra, for postage.

This is a queer tall weed that grows in fields and woods and bears little cups full of honey. It bears honey all the day long from July to October. Very hardy; blooms first year, and after that shoots up from the root every year, but needs planting anew about every three years. The seed sometimes lies in the ground many months before germinating. If sprinkled on the top of damp leaf-mold, packed hard in a box, and rolled hard, being kept dark and damp in a warm place, they will sprout in a week or two. Then give all the light and air possible, but not too much water.

**Honey Pea.** Per bu. $1.75; half-bu. $1; peck 60c, packages included. Per lb. 10c; by mail 10c extra. Bu. weighs about 60 lbs.

This is the stock pea of the South, and often yields much honey. It is also used for food.

**Horsemint.** Oz. 20c; lb. $2. Postage 10c per lb. extra.

The celebrated honey-plant of Texas.

**Lippia Nodiflora.** Oz. $1.

For description see Dec., 1879, GLEANINGS. Give hot-bed treatment.

**Motherwort.** Prices same as for catnip.

*PRICE 5 CENTS PER PAPER; 10 PAPERS, 40 CENTS; 100 PAPERS, $3.50.*

**Mignonnette.** Oz. 10c; lb. $1; by mail, add 10c per lb.

This is a great favorite with the bees, and also with those who are raising plants for their bees; but although we have sold considerable of the seed for bee pasturage, I am not sure that any one has ever made it pay in dollars and cents, for the honey alone. The tall varieties seem best suited to the bees, but are not as fragrant. It should be sown in the spring; and as the seed is small, it should have fine clean soil, and be covered lightly. This plant seems to have a rare capacity for standing frost, and bees may often be seen busy upon it clear into October.

**Mustard.** Common (either white or black), lb. 25c; oz. 10c. Add 10c per lb., if to be sent by mail.

The honey from this is said to be very light, equal to any in flavor, and to command the highest price in the market.

**Portulaca.** 5c per package.

Best mixed. A bed of portulaca, say a rod square, will show more bees in the working season, for the area, than any other plant I know of; furthermore, a bed of mixed portulacas, equivalent to a square rod, makes one of the handsomest, if not the handsomest of sights, when in full bloom, the whole floral kingdom affords. It does not seem to me that any bee-keeper ought to be without a bed; and I might also say, no lover of flowers can well afford to forego the gorgeous spectacle of a bed of mixed portulacas, especially when the seed is only 5 cents a paper. One paper will cover a square rod of ground nicely. You can have the square rod laid out in artistic beds and walks, if you choose.

**Rocky Mountain Bee-plant** *Cleome integrifolia*). Per lb. $1.25, postage 10c extra; oz. 15c.

This is closely connected with the noted Spider plant (C pungens), these two being the only species of the Cleome With us, it is much inferior to the Spider plant as a honey-producer. We have reports from some localities of its yielding large quantities of honey, hence quite a demand for the seed is the result.

**Sage, White** (*Salvia argentea*). Oz. 35c; lb. $4.

Is called the honey-plant of California, and belongs to the Labiatæ or Mint family, the same as Rosemary, Balm, Hoarhound, etc.

**Sweet Clover** (*Melilotus alba, or Melilot*). Per lb. 18c; 10 lbs. $1.50; 100 lbs. $12; if wanted by mail, add 10c for bag and postage. This is sold with the hulls on; the Bokhara is hulled.

This has some valuable traits, as standing frost and drouth, but many times and seasons, the bees will hardly notice it at all. About four pounds of seed are needed for an acre. Sow like Alsike. It will grow on almost any barren hillside, but it is a bad weed to exterminate; if, however, it is mown down to prevent seeding, the roots will soon die out. Sow in spring or fall. In the vicinity of Salt Lake, Utah, sweet clover is the main honey-plant, and the quality of the honey is equal, in my opinion, to any honey in the world. The plant lives through the dry summers in Utah.

**Bokhara Clover** is the same as sweet clover.

**Cœrulea, Bee Clover.** Oz. 10c; lb. 75c; by mail add 10c. for bag and postage.

This latter blossoms in about six weeks after sowing, and bears a small blue flower.

**Italian or Scarlet Clover** (*T. incarnatum*).

Introduced from Italy and France. The flowers are most beautiful, much resembling a large luscious strawberry. Blossoms first year. Prices same as sweet clover.

**Sunflower, Mammoth Russian.** Oz. 5c; lb. 10c; 10 lbs. or over, 8c; 100 lbs., 7½c; if wanted by mail, add 10c for bag and postage.

This plant is visited by the bees in great numbers in some localities, while in others it is scarcely noticed; but, as the seeds usually pay all expenses of cultivation, it holds its place as a honey-plant. The mammoth Russian bears by far the largest blossoms, as well as the largest seeds.

**Spider Plant.** Package 5c; oz. 20c; lb. $2. Postage 10c per lb. extra.

This plant, under favorable circumstances, yields more honey than any thing that ever before came under my observation. In Oct., 1879, each floweret yielded drops so large that a bee had to make two or more journeys to get it all, and I succeeded in dipping the honey from the plant with a spoon, until I half filled a bottle with it, for experiment. As it yields only this honey early in the morning, and late in the evening, it will go nicely with the Simpson honey-plant. I should think it quite probable that 5 acres of each of these plants would keep 100 colonies busy enough to be out of mischief during a dry fall, when bees are so apt to be robbing. For particulars concerning both plants, see A B C of Bee Culture. The Spider plant is an annual, and should be sown every year. It grows most quickly with hotbed treatment, but will blossom in August if sown in the open ground in May.

**Seven-top Turnip.** Oz. 10c; lb. 50c. If wanted by mail, 10c per lb. extra.

This plant, although not equal to the Spider plant and the Simpson honey plant, is entitled to a place next to them, because it bears its crop of honey in the spring, between fruit blossoms and clover. It should be sown in Aug. and Sept. It bears no root like the ordinary turnip, but only foliage that is used for greens.

**Yellow Trefoil** (*Medicago lupulina*).

A weed or pasture plant, in dry or sandy fields.

**Erysimum** (False Wall Flower).

Belongs to the Cruciferæ or Mustard family, and comprises but three species.

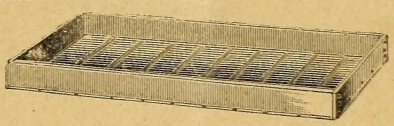
**Spring Vetches or Tares** (*Vicia sativa*).

Seems to be a cross between the Pea and Clover, partaking of the peculiarities of each, and belongs to the same family, Leguminosæ. Does not yield honey with us.

Any of the above seeds will be sent in 5c packages, to those who would like just a few to try.

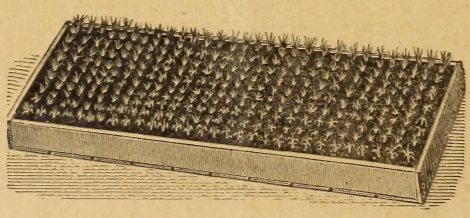
## *MISCELLANEOUS IMPLEMENTS FOR GARDENERS, FARMERS, Etc.*

### TRANSPLANTING-BOXES FOR SEEDLINGS.



EMPTY SEED-BOX FOR EARLY PLANTS.

To give drainage and strength, we have the bottom made of slats only three or four inches wide, and only ¼ inch thick. They are nailed on crosswise, as you will notice. Such light stuff would not be strong enough if put on lengthwise of the box. The sides of the box are 1⅛ x ½ inch. These are very easy to carry about, and answer just as well for small plants. From one of these boxes, we, in the spring of 1886, got 7500 celery-plants. After the first leaf had formed they were taken up and planted into similar boxes, as shown below:

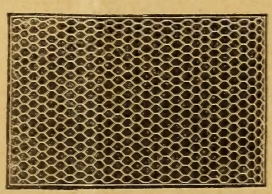


A BOX OF WHITE-PLUME CELERY-PLANTS AS IT APPEARS WHEN FIRST TRANSPLANTED.

Price of seed-boxes, as shown, made complete, 15c each. Price of stuff in the flat, in lots of 10, 85c; 100 in the flat, $8.00.

You will observe that there are 10 rows of plants, and 30 plants in a row, so it took 25 boxes, with 300 plants to a box, to contain just what grew in one single seed-box.

### TRANSPLANTING-FRAME.



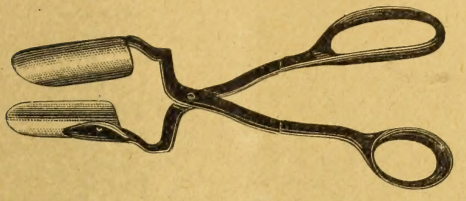
The above is made by stretching a piece of poultry-netting over an iron frame. This is then laid over one of the plant-boxes shown above, and the plants are put in the center of each mesh. Celery-plant seedlings we put two in each mesh—a plant in each sharp corner. This spaces them properly, without any effort, and lays out the work so that even a child may learn to transplant seedlings, and do it well and rapidly. Price of transplanting-frame, suitable for the above boxes, 25 cts.

We start cabbage, cauliflower, and celery plants, in the fore part of February; tomato-plants from the middle to the latter part. If they get too large before the weather is suitable to set them out, shear off the tops and let them grow out again. This will have the effect of making a strong root.

## MOSS FOR PACKING PLANTS AND STARTING SEEDS.

By taking a very large stock we are enabled to offer the nicest moss we have ever got hold of, at the extremely low price of 25c per bushel. This is packed in two half-bushel baskets that would cost you 10 cents, leaving the moss only 15c, or we will send you a peck postpaid for 20c. This is ready to use for packing purposes, but if you want to use it for sowing seeds you must get it real dry, so the fibers are brittle and will break fine, either by sifting it or rubbing it between the hands. We can furnish it all nicely sifted ready for use for 10c per quart postpaid. You can often save several times the cost of a quart in starting a single packet of celery seed.

## THE AVERY TRANSPLANTER.



Price 40c; by mail, 50c. When the soil is just wet enough, and not too wet, strawberries, vegetable-plants, etc., may be taken up with a ball of earth, like a strawberry-plant, and placed in freshly prepared fertile soil, without having the plant checked in its growth a single day.

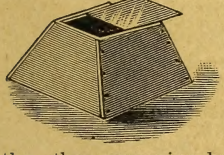
## PAPER SEED-BAGS.

Large size, to hold ounces, $1.50 per 1000, or 20 cts. per 100. Medium size, to hold ordinary packets, $1.35 per 1000, or 18 cts. per 100. Small size, for very expensive seeds, $1.15 per 1000, or 15 cts. per 100. If wanted by mail, add for postage, 5, 8, and 10 cts. per 100 respectively. The same printed to order (not to exceed 50 words), 25 cts. per 100, or $1.00 per 1000.

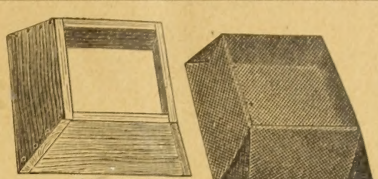
## GALVANIZED WIRE CLOTH.

Four and eight meshes to the inch. Per sq. ft., 10c; 10 ft., 85c; 100 ft., $7 50. Suitable for outlets to carp-ponds, sieves, drying fruit, etc. By mail, 10c per square foot for postage.

## BOXES FOR STARTING SQUASHES, MELONS, CUCUMBERS, ETC.



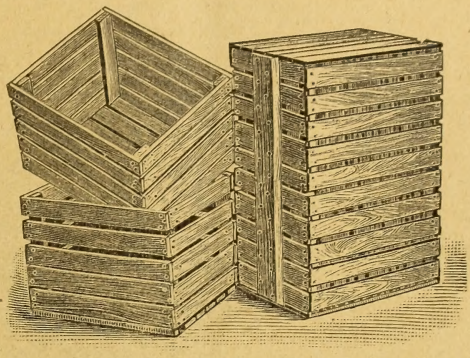
During my visit to Arlington, in July, 1886, I noticed that the squash-growers had a plan for getting Boston Marrow squashes on the market very early. It is by means of the boxes shown in the adjoining cut. These, as you notice, are made so as to nest one in the other, occupying but little room when stored away, or drawn out on the wagon. An 8×10 glass slides in the top. These boxes can be used for putting over hills of early potatoes in March and April; and when the potatoes are out of danger the boxes will do good service in forwarding squashes, melons, and cucumbers. After all danger of frost is past, the glass may be drawn out, but the box is left on, as a protection against bugs. If the bugs are very bad, however, you will have to tack on cheese cloth. The striped bug will *crawl through* mosquito bar. As the glass is to move loosely, it is not a very long job to slide them all back when the weather is mild, and close them up again at night, when frost comes. If the earth is banked around the lower edges, it makes quite a miniature cold frame. I was astonished while at Arlington to see squash-vines fully a month ahead of the usual time; but I was told these boxes were the explanation of it. Don't fail to have a big lot of good manure under every box (see our little book, "Gregory on Squashes"). Prices of these little boxes without glass, in the flat, 10 cts. each; 85 cts. for 10, $7.50 per 100. Glass to match, $2.50 per box of 50 square feet. There are about 90 lights in a box.




THE BUG-PROTECTOR, AND HOW TO MAKE IT.

After the season of frost is passed, we prefer, for a bug-protector, the wire-cloth basket shown above. They are made of pieces of wire-cloth 18 inches square, and the wooden form on the left of the cut shows how they are made. We can furnish these made up, for 5 cts. each; 48 cts. for 10; $4.50 per 100. Smaller sizes, for single plants, 4 cts. each; 38 cts. for 10; or $3.50 per 100. Small ones can be sent by mail in lots of 10, at 25 cts. for postage on the 10.

## BUSHEL BOXES.



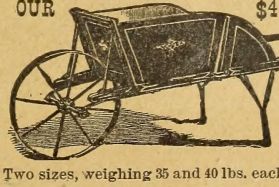
ALL-SLATTED BUSHEL BOXES.

The above cut shows our new-style *all-slatted bushel box*. We have two other styles; one has slatted bottom and sides with one solid board for each end, called the *slatted bushel box*. The other has solid ends and close bottom and sides and is bound with galvanized iron and called the *galvanized bound box*. These boxes were devised by T. B. Terry for handling potatoes, for which purpose nothing could be handier. The potatoes are picked up into the boxes in the field and left in them till sold. Other crops, such as cucumbers, tomatoes, and apples are being handled in these same boxes. They are of such a size that two go crosswise in an ordinary wagon box. Outside measure is 14¼x16⅞ x12½ deep, and they hold a bushel of potatoes level full so they can be piled one upon another. The above cut shows two *all-slatted boxes* nailed up, and a bundle of fifteen along side; 13 of the 15 are in the flat packed inside the other two, and nails of the proper kinds are included. The *slatted* and *galvanized bound* boxes are put up in the same way, only there are only 12 in a package instead of 15. Each package weighs about 100 lbs.

PRICE LIST.

All-slatted bushel box per crate of 15.....$1.50
Slatted " " " " 12..... 1 50
Galvanized bound bushel box per crate of 12 .. 2.10

In lots of ten crates, 5 per cent discount will be deducted. Price each, nailed, 15, 20, and 25 cents, respectively. The early order discount will not apply to those boxes, but above prices are net all the year.



**OUR $4 Daisy Wheelbarrow**

Strongest and neatest barrow made for gardeners, bee-keepers, merchants' delivery, and general use. Has steel wheel, axle, and legs; steel springs with adjustable bearings. Elegantly painted and varnished. Will carry 500 lbs. Two sizes, weighing 35 and 40 lbs. each. Price **$4** and **$4.25.**

*Friends:--*

*You will notice our catalogue for 1892 differs but very little from last year's. Two or three of our old friends have stepped out to make room for something better. For instance, the Mammoth Silver King onion is more than replaced by the American Pearl, with its beautiful pearly-white appearance, and quality of standing our winters so perfectly. Giant Summer Crookneck squash is all that the small Golden Crookneck is, and a great deal besides; moreover, our stock of seed is extra choice. The improved Dwarf Champion tomato is another addition for you who have not much ground and must plant close. It is a splendid tomato, but does not equal the Ignotum for large crops. Of strawberries, we are testing 30 or 40 different varieties; but see no reason to change the list as decided on last year. We are constantly testing the varieties as they come up, and we have some other things that will be noticed in Gleanings from time to time.*

*Wishing you success and prosperity, with plenty of "garden sass" all through the year 1892, I am*

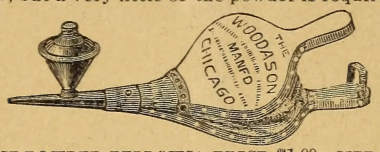
*Yours truly, A. I. ROOT.*

*Medina, O., Jan. 20, 1892.*

## PYRETHRUM ROSEUM.

*(Persian Insect-Powder.)*

This is not only a pretty plant for the flower garden, but the flowers, gathered and dried when in full bloom, and then finely powdered, furnish us the Persian insect-powder, of which so much has been said. With us it has been the surest thing to kill all sorts small insects, laying them out dead in even a few minutes, of any thing we have ever got hold of. It will also kill the green fly in greenhouses. When used in the insect-powder bellows, shown below, but a very little of the powder is required.




INSECT-POWDER BELLOWS; PRICE $1.00; SIZE 6x18 INCHES.

With the above instrument you can kill every fly in any room of the house, within an hour. Of course, the doors and windows of the room should all be closed. In painting new houses in the summer time, when flies are troublesome, the instrument is worth more than it costs, for this alone. It is not at all poisonous or injurious to human beings.

Price of the powder, all ready for use, one ounce, 5 cts.; ¼ lb., 15 cts.; 1 lb., 50 cts.; 10 lbs., $4.25. Price of the seeds, one packet, 5 cts.; one ounce, 40 cts.; 1 lb., $5.00. By mail, 18c per lb. extra on powder, and 9c on the seeds.

## TOBACCO DUST.

This is sprinkled over the foliage, and on the ground around lettuce in the greenhouse or on melon and other vines just as they are coming up and is one of the best and cheapest insectcides known. One lb. by mail, 25 cts; 5 lbs. by express or freight, 3 cts. per lb.; 10 lbs., 2½ cts. per lb.; 25 lbs. 2 cts. per lb. 100 lbs., $1.75.

## PUTTY-BULB.

For setting glass for greenhouses, for repairing sash, etc. This is a rubber bulb, with nozzle, for running liquid putty along where the glass lies in the sash. No person who has half a dozen sash should be without one. Full instructions for preparing the putty, with each. With a little different arrangement the above makes the nicest kind of powder-gun for using a small quantity of pyrethrum, or insect powder. In ordering, please state which purpose you wish it for. Price 15 cts: postage 5 cts.

## GOODS ESPECIALLY FOR POULTRY RAISERS.

### PURE BONE MEAL.

Coarsely ground, expressly for poultry. Per lb., 5 cts.; 5 lbs., 3 cts. per lb.; 10 lbs., 2¾ cts. per lb.; 100 lbs., 2½ cts. per lb; by the barrel, shipped from factory, 2 cts. per lb. Fowls will eat this almost as greedily as corn; and it not only furnishes material for egg-shell, but it gives them considerable animal matter besides. Excellent for laying hens. It is sure cure for thin-shell eggs.

Bone meal ground fine, for gardening purposes, same price as the above.

**NEST-EGGS** polished wood, each 2c; 10, 15c; 100, $1.25. Postage 3c each.

**Sunflower Seed, Mammoth Russian,** per lb., 10c.; 10 lbs., 80c; 100 lbs., $7.50.

## BOOKS ON GARDENING, FARMING, &c.

I have indicated my opinion of the books by characters as follows: Books that I approve I have marked with a *; those I *especially* approve, **.

3 | A B C of Potato Culture, Terry** ..... 35

This is T. B. Terry's first and most masterly work. The book has had an enormous sale, and has been reprinted in foreign languages. When we are thoroughly conversant with friend Terry's system of raising potatoes, we shall be ready to handle almost any farm crop successfully. It has 48 pages and 22 illustrations.

3 | An Egg Farm, Stoddard** ..... 45

No matter whether you raise eggs on a large scale or a small scale, you can not afford to miss reading friend Stoddard's book. I do not know that I ever got hold of any piece of fiction—not even Robinson Crusoe, that so thoroughly fascinated me as these chapters in regard to raising poultry on a large scale. The work has 95 pages and 42 illustrations.

7 | Farm, Gardening, and Seed Growing** ..... 90

This is by Francis Brill, the veteran seed-grower, and is the only book on gardening that I am aware of that tells how market-gardeners and seed-growers raise and harvest their own seeds. It has 166 pages.

5 | The Silo and Ensilage, by Prof. Cook, new edition, fully illustrated ..... 20

Three thousand copies of the first edition of this little book were sold in about eight months, and friend Cook has now gotten out a new and enlarged edition, fully illustrated with excellent engravings. The pictures are worth alone to me a good deal more than 25 cts. The whole matter is treated in friend Cook's happy way of making things plain. We can send the book postpaid by the first mail.

3 | Maple Sugar and the Sugar-bush, by Prof. A. J. Cook..... 35

The name of the author is enough of itself to recommend any book to almost any people; but this one on maple sugar is written in Prof. Cook's happiest style. It is profusely illustrated, and all the different points in regard to making the very best quality of maple syrup and maple sugar are fully explained. All recent inventions in apparatus, and methods of making this delicious product of the farm, are fully described.

10 | Fuller's Grape Culturist*..... 1 40

This is, perhaps, the most systematic, comprehensive, and thorough work on grape culture now in print; in fact, friend Fuller here tells us how, by easy steps, to make any grapevine come into the work, and make a pleasant, orderly appearance: and he makes it as attractive as a piece of fiction; and the best part of it is, that you get great crops of beautiful grapes during almost any kind of season. We have tested the system, and know whereof we speak.

10 | Farming for Boys*..... 1 15

This is one of Joseph Harris' happiest productions, and it seems to me that it ought to make farm-life fascinating to any boy who has any sort of taste for gardening.

10 | Gardening For Pleasure, Henderson*.... 1 40

While "Gardening for Profit" is written with a view of making gardening PAY, it touches a good deal on the pleasure part, and "Gardening for Pleasure" takes up this matter of beautifying your homes and improving your grounds, without the special point in view of making money out of it. I think most of you will need this if you get "Gardening for Profit." This work has 246 pages and 134 illustrations.

12 Gardening for Profit,** New Edition ..... 1 85

This is a late revision of Peter Henderson's celebrated work. Nothing that has ever before been put in print has done so much toward making market-gardening a science and a fascinating industry. Peter Henderson stands at the head, without question, although we have many other books on these rural employments. If you can get but one book, let it be the above. It has 376 pages and 138 cuts

10 | Gardening and Farm Topics, Henderson*.. 75

15 | How to Make the Garden Pay**..... 1 35

By T. Greiner. This is a new book, just out, and it gives the most explicit and full directions for gardening under glass of any book in the world. Those who are interested in hot-beds, cold-frames, cold-greenhouses, hot-houses, or glass structures of any kind for the growth of plants, can not afford to be without the book.

8 | Gardening for Young and Old, Harris** ... 90

This is Joseph Harris' best and happiest effort. Although it goes over the same ground occupied by Peter Henderson, it particularly emphasizes thorough cultivation of the soil in preparing your ground; and this matter of adapting it to young people as well as to old is brought out in a most happy vein. If yout children have any sort of fancy for gardening it will pay you to make them a present of the book. It has 187 pages and 46 engravings.

5 | Gregory on Cabbages; paper*..... 25

5 | Gregory on Squashes; paper*..... 25

5 | Gregory on Onions; paper*..... 25

The above three books, by our friend Gregory, are all valuable. The book on squashes especially is good reading for almost anybody, whether they raise squashes or not. It strikes at the very foundation of success in almost any kind of business.

5 | The New Onion Culture* ..... 30

This book is by T. Greiner, and it gives full particulars of the plan of planting onion seed in a greenhouse, hot-bed, or cold-frame, and planting the onions out in the field at the time we usually sow the seed. The author thinks that 2000 bushels of the large tropical onion can by this method be raised on an acre.

2 | A Treatise on Tomato Culture*..... 18

This valuable little pamphlet comes from J. W. Day, of Crystal Springs, Miss. It is not only the first book on tomato culture that has ever appeared, so far as I know, but it was written by a practical man who raises tomatoes by the hundred acres, and it contains many hints of great value.

10—Irrigation for the Farm, Garden, and Orchard, Stewart*..... 1 40

This book, so far as I am informed, is almost the only work on this matter that is attracting so much interest, especially recently. Using water from springs, brooks, or windmills, to take the place of rain, during our great droughts, is the great problem before us at the present date. The book has 274 pages and 142 cuts.

5 | A B C of Strawberry Culture** ..... 35

The above book by T. B. Terry, with some additional remarks by A. I. Root, is, at the present time, creating an enthusiasm and interest in strawberry culture never known before. It is a book of 144 pages and 52 engravings, and it is fully up to the times.

10 | Money in the Garden, Quinn* ..... 1 40

10 | The New Agriculture, or the Waters Led Captive*..... 50

This book created quite a sensation three or four years ago; and while father Cole's bright visions have not all been realized, I think the book contains much that is good. It is a large nice book, and it was originally sold for $1.50. I purceased 100 volumes when it was first issued; but as it has not sold very well, I now offer them at 50c each.

8 | What to Do, and How to be Happy While Doing It, by A. I. Root**..... 75

The above book is intended to solve the problem of finding occupation for those scattered all over our land, out of employment. The suggestions are principally about finding employment around your own homes. The book is principally upon market-gardening, fruit culture, poultry-raising, etc. I think it will be well worth the price, not only to those out of employment, but to any one who loves home and rural industries. Price in paper covers, 50 cts. Eight cents extra by mail.

**A. I. ROOT, Medina, O.**